

# Islamization, Ethics and Values in Science and Technology

Suleyman Aremu Muyibi  
Mohamed Elwathig  
Saeed Mirghani  
Waleed Fekry Faris  
Abdi Omar Shuriye  
Jamal Ibrahim Daoud  
Ma'an Fahmi R. Alkhatib  
Jalil Chebil

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# **Islamization, Ethics and Values in Science and Technology**

**By**

*Islamic Values and Ethics in Engineering Sciences Research Group  
(IVEES-RG)*

**International Islamic University Malaysia (IIUM)**

## **Editors**

**Suleyman Aremu Muyibi**

**Mohamed Elwathig Saeed Mirghani**

**Waleed Fekry Faris**

**Abdi Omar Shuriye**

**Jamal Ibrahim Daoud**

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**Jalel Chebil**



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Taman Perindustrian Batu Caves  
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Tel: +603-6188 1542 / 44 / 45 Fax: +603-6188 1543  
EMAIL: [iiumprinting@yahoo.com](mailto:iiumprinting@yahoo.com)

## **Islamic Values and Ethics in Engineering Sciences Research Group (IVEE-RG) Members**

Abdi Omar Shuriye  
Ahmad Tariq Jameel  
Jalel Chebil  
Jamal Ibrahim Daoud  
Ma'an Fahmi R. Alkhateeb  
Mohamed Elwathig Saeed Mirghani (Secretary)  
Mohammed Saedi Jami (Coordinator)  
Nassereldeen Ahmed Kabashi  
Parveen Jamal  
Raed Kafafy  
Shihab A. Hameed  
Souad A. Mohamad Albat'hi  
Suleyman Aremu Muyibi  
Waleed Fekry Faris

### **Authors:**

Abdelaziz Berghout  
Abdi Omar Shuriye  
Abdul Haseeb Ansari  
Ahmad Tariq Jameel  
Ibrahim M. Zain  
Jalel Chebil  
Jamal Ibrahim Daoud  
Ma'an Fahmi R. Alkhateeb  
Mohamed Elwathig Saeed Mirghani  
Mohammed Saedi Jami  
Muaz Hawari  
Nassereldeen Ahmed Kabashi  
Omar H. J. Hajjaj  
Othman Omran Khalifa  
Parveen Jamal  
Raed Kafafy  
Sayed Desouky Hassan  
Shihab A. Hameed  
Souad A. Mohamad Albat'hi  
Suleyman Aremu Muyibi  
Waleed Fekry Faris

## **Short Bio-data for Authors**

### **Assoc. Prof. Dr. Shihab A. Hameed**

Is currently Associate Professor in department of electrical and computer engineering IIUM University Malaysia. He is Senior Member IEEE (Computer & Communications) and member of several International and Local professional societies. He is a member of curriculum committee and developing course outlines for many new courses in Computer and software engineering. He obtained his PhD in Software Engineering from UKM. He has three decades of industrial and educational experience. His research interest is mainly in the software engineering, Professional Ethics, Software quality, surveillance and monitoring systems, healthcare and Telemedicine. Dr. Hameed supervising many PhD and Master Students, Leading many funded research projects as well as leader or member of several research groups or unites. He published more than 100 papers in various international and national referred journals and conferences. Dr Hameed obtains Tens of Medals and rewards for his innovation and advanced research work. He is member of several editorial boards for referred journals as well as member of several organizing committees for international conferences.

### **Assoc. Prof. Dr. Waleed F. Faris**

Waleed F. Faris is the Deputy Dean in the Office of Corporate Strategy & Quality Assurance in the International Islamic University Malaysia (IIUM), and also holds an appointment as an Associate Professor in the Mechanical Engineering Department and Mechatronics Department of the same University since 2004. He obtained his BSc in Mechanical Engineering from Zagazig University, Egypt, in 1989, his MSc from the same university in 1996, and his PhD from Virginia Tech, USA, in 2003 in Non-linear Dynamics. He has to his credit three books and more than 90 technical papers in reputed journals and refereed conferences in Vehicle, structural, and System Dynamics and Control and NVH and management and Islamization. He is a member of the Japanese Society of Automotive Engineers, and a technical committee member and reviewer of several international journals and conferences world-wide.

### **Assoc. Prof. Dr. Mohamed Elwathig Saeed Mirghani**

A Sudanese, currently Associate Professor in the Department of Biotechnology Engineering, Kulliyyah (Faculty) of Engineering, IIUM. He obtained his first degree from Cairo University, Cairo, Egypt; the 2<sup>nd</sup> degree from University of Gezira, Medani, Sudan and the PhD from University Putra Malaysia (UPM). He is member of several International and Local professional societies such as AOCS, AFOCS, SCS, etc. He is registered as consultant for Sudanese Agricultural Engineers Union. He honoured many awards locally and at international level. He published more than 90 papers in various international and national referred journals and conferences proceedings. He is member of several editorial boards and organizing committees for international conferences.

**Prof. Dr. Abdul Haseeb Ansari**

Professor Dr. Abdul Haseeb Ansari obtained his B.Sc. from Gorakhpur University, India and LL.M., Ph.D. from Banaras Hindu University, India. He has special interest in revenue law, environmental law, international law and comparative jurisprudence. He has extensively contributed on different aspects of environmental law. He has a long experience of teaching and guiding research in these subjects. He has extensively contributed to the knowledge by publishing eighty over articles and a book. He is Editor-in-Chief of Journal of Islamic Law Review. Professor Ansari has membership of some of the international institutions of high repute. He is presently working as a Professor at the International Islamic University, Malaysia. In 2005, he got the best researcher award of the university. In 2008, was honored with the outstanding researcher award of the university.

**Assoc. Prof. Dr. Parveen Jamal**

Associate Professor Dr. Parveen Jmal obtained her degrees from Aligarh Muslim University, India. She joined International Islamic University in 1997. Her areas of expertise are: natural product processing, optimization for bioactive compounds, secondary metabolites and their applications, bioconversions of natural product and organic residues to value-added products. In these areas, she has completed several projects and has published a large number of articles in various national and international journals.

**Prof. Dr. Abdelaziz Berghout**

Abdelaziz Berghout, an Algerian, is a Professor of Civilization, Islamic Studies and Creative Thinking, Faculty of Revealed Knowledge and Human Sciences, International Islamic University, Malaysia. He has obtained the Best Lecturer Award (2003), Best Researcher Award (2006) and Outstanding Researcher Award (2007). Currently, serves as the Dean, (Corporate Strategy and Quality Assurance), International Islamic University Malaysia. He also served as Director of Co-curricular Activity Centre Covering Director of Student Development Division. He serves as advisor and consultant to many organisations in Malaysia, USA, Morocco, Turkey, Australia and Singapore...etc. He published many books, among which are, *Prophetic Methodology and Social Change* (1995) , *Civilizational Thought: Need for Transformation of Man, Thought, Education and Culture* (2003), *Islamic Discourse in a Multi-Religious and Multi-Cultural Society* (2005/ 2008), *Foundations of Civilizational Renewal and its Universal Dimensions: A Study on Malik Bennabi's Thought* (2006), *The Islamic Worldview and Renewal: A Civilizational Approach* (2006), *Towards an Islamic Theory for Civilizational Development: the Contribution of Said Nursi* (2006), *Islam and the Civilizational Project in contemporary World*, (2007), *Strategic Thinking to Enhance Human Capital Development*, Co-author, Kingdom of Saudi Arabia, 2009. He also published many articles in local and International Journals. He Lectured extensively throughout the world, among other places, the UK, Holland, Australia, Algeria, Malaysia, Singapore, Turkey, the Phillipiens, Brunie, Saudi Arabia, Qatar, Kawait, Syria, United Arab Emarates, Bahrin, Oman, Jordan...etc. The scope of his lectures cover area such as, Islamic thought, culture, civilisation, globalisation, education, quality , strategic planning in higher education, worldview, creative and critical thinking, civilisational dialogue...etc.

#### **Assist. Prof. Dr. Jamal I. Daoud**

Dr. Jamal I. Daoud obtained his B.Sc. (1981) degree from University of Baghdad, Iraq, PhD (1992) from State Academy of Management, Moscow, Russia. His interests are in Regression Analysis, Experimental Design and Statistical Inference. He has published a number of papers on the application of regression and experimental design and many other papers in statistics and mathematics as well. Dr Jamal is co-author of four books in experimental design, inferential

statistics and regression analysis. He has presented papers at several international conferences. He is presently working at the International Islamic University Malaysia.

**Professor Engr. Dr. Suleyman Aremu Muyibi**

He earned his BS Engineering (*cum laude*) with major in environmental control from the University of Central Florida USA. MEng (Civil Engineering) majoring in Water Resources and Environmental Engineering from the University of Benin, Nigeria PhD in Environmental Engineering from the University of Newcastle, UK and Diploma in Islamic Studies (DIS) from the International Islamic University Malaysia. He is a member of Islamic Values in Engineering and Ethics in Engineering Research Group, a member of the Nigerian Society of Engineers (NSE), a Registered Civil Engineer (COREN, Nigeria), a member of the Malaysian National Committee on Irrigation and Drainage (MANCID), a member of Nigerians in Diaspora Science and Technology Committee (DINISAT), member of Moringa News Network, Coordinator of the Bioenvironmental Engineering Research Unit (BERU) at the International Islamic University Malaysia and member of Malaysian Water Association (MWA). His area of expertise and interest is in water resources and environmental management with special emphasis on Islamic perspectives. He have authored and co-authored more than 150 publications in journals, conferences, technical reports, and a book.

**Assoc. Prof. Dr. Hamzah Mohd. Salleh**

Hamzah Mohd. Salleh received his tertiary education from the University of Waterloo, Canada from 1982–1986 (BSc), 1986–1988 (MSc) and 1989–1994 (PhD). He completed his post-doctoral training at the University of Michigan, USA in 1995. He has extensively contributed in the development of the Faculty of Engineering by serving in different committees and holding administrative positions from 1995 to 2008. His current interests include biological and catalytic properties of enzymes including enzyme technology and engineering; biotransformation; values and ethics in science and technology; and *halal* science.



**Associate Professor Dr. Nassereldeen Ahmed Kabbashi Abuelfutouh**

Dr. Nassereldeen Ahmed Kabbashi Abuelfutouh obtained his PhD from University of Putra Malaysia 2002 in Environmental Engineering. Dr. Kabbashi area of interest is in Composting; Process Control; Strategic planning and Management, Bioethanol and Biodiesel production and Management; Environmental Engineering; Technology Management; Solid Waste Management; Production & Application of Nanotechnology for wastewater treatment; and Water and Wastewater Treatment and Management. Dr Kabbashi is a member of Biotechnology Engineering Research Unit in the Biotechnology Engineering Department under Kulliyah Engineering IIUM.

**Assistant Prof. Dr. Souad A. Mohamad**

Assistant Prof. Dr. Souad A. Mohamad is currently an academic staff at department of manufacturing and materials engineering, faculty of engineering, IIUM. She obtained her BSc. from Basra University, Iraq, M.Sc. Baghdad University, Iraq and PhD, Malaya University, Kuala Lumpur, Malaysia, in materials science. Her area of interest is solar energy and Solar Cells, green technology, thin films, semiconductors and polymers, electro-photochemical sensitization, food science and islamization of knowledge. She has a long experience of teaching and supervising students in these subjects. In 2005 and 2007 she got the best teacher awards at center for foundation studies of IIUM. In 2010 she has been selected as a reviewer for Asia-Pacific Journal of Chemical Engineering and IIUM Engineering Journal.

**Assistant Prof. Dr. Ma'an Fahmi R. Alkhatib**

Dr. Ma'an Alkhatib obtained his B.Sc. in chemical engineering from University of Jordan and M.Sc. in chemical and process engineering from the National University of Malaysia, while his PhD was obtained from University Putra Malaysia in Environmental Engineering. In 2007, he joined the International Islamic University Malaysia as a lecturer in the Department of Biotechnology Engineering. His research interest is on activated carbon, nanomaterials, bioadsorbents and alternative fuels. Dr. Ma'an has published many papers in journals and conferences. He also won many awards in local and international exhibitions.

## CONTENTS

Short Bio-data for Authors	vi
Preface	1
Synopsis	2
<b>Chapter 1</b>	3-15
VALUES AND EDUCATION WITHIN THE FRAMEWORK OF ISLAMISATION OF KNOWLEDGE Abdelaziz Berghout	
<b>Chapter 2</b>	16-26
ETHICAL ISSUES IN ENVIRONMENTAL MANAGEMENT AND RESOURCE CONSERVATION FROM ISLAMIC PERSPECTIVE Suleyman Aremu Muyibi & Hamzah Mohd Salleh	
<b>Chapter 3</b>	27-45
RELIGIOUS TOLERANCE AND DIALOGUE IN VIEW OF GÜLEN'S GLOBALIZED WELTANSCHAUUNG Abdi O. Shuriye	
<b>Chapter 4</b>	46-54
TOWARDS AN ISLAMIC THEORY OF DEVELOPMENT BASED ON QURANIC APPROACH: SURAH QURAISH AS A CASE STUDY Sayed Desouky Hassan, Waleed F. Faris & Raed Kafafy	
<b>Chapter 5</b>	55-76
RIGHT TO A HEALTHFUL ENVIRONMENT IN ISLAM: AN EXPOSITORY STUDY Abdul Haseeb Ansari & Parveen Jamal	
<b>Chapter 6</b>	78-91
EARLY MUSLIM CONTRIBUTIONS TO ASTRONOMY Abdi O. Shuriye & Nasreldeen Kabashi	
<b>Chapter 7</b>	92-99
ETHICS OF THE STUDENT AND PROFESSOR: ABOUT THE CHARTER OF THE MORAL FROM ISLAMIC PROSPECTIVE Mohamed Elwathig Saeed Mirghani & Ma'an Fahmi R. Alkhatib	
<b>Chapter 8</b>	100-110
MUSLIM CONTRIBUTIONS TO PHYSICS Abdi O. Shuriye & Waleed Faris	

<b>Chapter 9</b>	112-124
<b>E-WASTE: PROBLEMS, ISLAMIC PERSPECTIVE AND SOLUTIONS</b>	
Waleed F. Faris, Othman O. Khalifa and Muaz Hawari	
<b>Chapter 10</b>	125-142
<b>HARMFUL DATA THAT AFFECT ETHICAL, RELIGIOUS, AND SOCIAL VALUES OF INTERNET USERS IN EDUCATION PROCESS</b>	
Shihab A. Hameed	
<b>CHAPTER 11</b>	143-156
<b>USE AND ABUSE OF TECHNOLOGY: INTERNET AS A CASE STUDY</b>	
Waleed F. Faris & Jamal I. Daoud	
<b>Chapter 12</b>	157-165
<b>ISSUES ON ETHICS AND VALUES IN ENGINEERING PRACTICES</b>	
Abdi . O. Shuriye	
<b>Chapter 13</b>	166-176
<b>CAN ISLAMIC BANKING INDUSTRY ETHICAL FRAME SAVE THE FINANCIAL SAVE THE WORLD FINANCIAL SYSTEM: THE RESPONSE OF ISLAMIC BANKS IN 2008 FINANCIAL CRISIS</b>	
Hassanuddeen A. Aziz	

## MUSLIM CONTRIBUTIONS TO PHYSICS

Abdi O. Shuriye  
&  
Waleed Faris

### Introduction to Physics

In this chapter physics has been described as one of the oldest academic disciplines; which is transformed to be significant and influential. Advances in its understanding have translated into new technologies especially associated with electronics, machine developments, etc. Some of the major contributions of early Muslim scientist have been mentioned in the chapter, so that the reader may reflect on their level of intellect despite the limitation and un-sophistication of technology during their era.

As such, Physics can be regarded as one of the sciences among the fundamental four, namely, biology, chemistry, mathematics, and of course, physics itself. Though some consider it to be primarily a field that wraps the applications of mathematics, it has evolved into a distinctive field of its own, gaining the attention of many scientist around the world. According to Owadally, there is a natural philosophy in Islamic Science known as *tabi'iyat* which includes the life sciences and the earth sciences that is inclusive of physics.<sup>190</sup> He further asserts that: "Muslims classified these as the mathematical sciences. The principles of natural philosophy were in a treatise called *fann al-sama al-tabi'* (section dealing with what is heard concerning natural philosophy) ... Nearly every Muslim philosopher had devoted a section of their writing to physics. In traditional doctrines, physics is an application of metaphysics. The principles of physics are to be found in metaphysics."<sup>191</sup>

Seyyed Hossein Nasr adds that the study of physics (*tabi'iyat*) in the Islamic world, more than any other science, followed the teachings of Aristotle in its basic outlines.<sup>192</sup> Most of the problems posed by Muslim philosophers and scientists in this field were set within the frame work of doctrines of form and matter, potentiality and actuality, the four causes, and teleology. Seyyed Hossein Nasr describes physics in medieval times as a study that includes the study of all things that change, or, in Aristotelian terminology, the study of all things in the world of generation and corruption.<sup>193</sup> According to him:

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<sup>190</sup>Mohammad Yasin Owadally, *The Muslim Scientists*, (Kuala Lumpur: A. S. Nordeen, 2003), 38

<sup>191</sup>Ibid

<sup>192</sup>Seyyed Hossein Nasr, *Science and Civilization in Islam*, (Malaysia: Dewan Pustaka Fajar, 1984), 126

<sup>193</sup>Seyyed Hossein Nasr, *Science and Civilization in Islam*, (Malaysia: Dewan Pustaka Fajar, 1984), 126